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# **State of Washington**

## **Utilities and Transportation Commission**

### **Pipeline Safety Survey**

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Prepared by:



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## METHODOLOGY

This report is based on the findings of a telephone survey conducted August 23 – August 28, 2003 by Evans/McDonough for the state of Washington’s Utilities and Transportation Commission.

A total of nine hundred (900) interviews were conducted among Washington State residents, age eighteen and older -- five hundred (500) among residents statewide using a Random Digit Dial (RDD) sample and four hundred (400) among residents who live within a quarter mile of a major pipeline. The sample of residents living near a major pipeline was constructed by creating an address range within one thousand feet along the major pipelines (address ranges were provided by UTC). The address ranges were then put through a reverse directory look-up to create the final sample.

In this report, four groups are primarily referenced and are defined below:

1. **Statewide respondents** (n=500; Margin of Error:  $\pm 4.5$ ): residents from the statewide RDD sample
2. **Pipeline respondents** (n=400;  $\pm 5.0$ ): residents within one quarter mile of a major pipeline from the pipeline sample
3. **Pipeline Aware respondents** (n=137): those residents in either the statewide sample or the pipeline sample who are aware that they live within a quarter mile of a major pipeline
4. **Pipeline Unaware respondents** (n=696): those residents in either the statewide sample or the pipeline sample who are unaware that they live near a pipeline (whether they do or not)

### Research Design Summary

<b>Number of total Interviews:</b>	900 (500 statewide; 400 pipeline over-sample)
<b>Interviewing Dates:</b>	August 23-28, 2003
<b>Margin of Error:</b>	$\pm 4.5$ points statewide; $\pm 5.0$ points for over-sample
<b>Statewide Universe:</b>	Washington State residents, age 18 and older
<b>Pipeline sample Universe:</b>	Washington State residents, age 18 and older, living within 1,000 feet of a major pipeline

## **KEY FINDINGS**

**Most residents agree that pipelines are an essential element of our nation's energy supply and that they are safer than current alternatives for transporting fuels.**

**Residents who are aware that they live near a major pipeline are much less concerned about living near a pipeline than respondents in the other two groups.**

**Nearly half of residents in the statewide sample, the pipeline oversample, and the sample of those who are aware that they live near a major pipeline give pipeline companies a negative rating ("only fair" or "poor") for the job they are doing making sure major pipelines are safe.**

**Most residents, including those who are aware that they live near a major pipeline, do not feel they have enough information to say whether or not pipelines in Washington state are adequately inspected.**

**A majority of residents (51%) have a favorable opinion of the UTC after hearing a brief description of the agency and its purpose. There is no statistical difference in the UTC's favorable rating between the statewide sample and the other two groups.**

**Residents do not feel that the information people need about basic pipeline safety is being effectively communicated. Most are not sure where to get basic information about pipeline safety and do not feel the information is easy to find. Residents who are aware that they live near a major pipeline are slightly more likely to agree that they know where to get pipeline safety information, but even in this group, large numbers do not feel the information is being effectively communicated.**

**These concerns about the effectiveness of communication are echoed in the poor ratings given to the UTC and to pipeline companies for the job they are doing keeping the public informed about pipeline safety issues.**

**Most residents in the statewide sample, over-sample, and those aware that they live within a quarter mile of a pipeline give negative job ratings for the UTC and the pipeline companies for the job they do keeping the public informed about pipeline safety.**

**Most residents do not pay much attention to pipeline issues in their daily life. However, those residents who are aware that they live within a quarter mile of a pipeline pay more attention than residents in the other two groups.**

**A third of respondents who are aware that they live near a major pipeline say they receive information, other than news reports, about basic pipeline safety. One quarter of the oversample say they receive information other than news reports. A majority (57%) of these residents (n=92) receive the information in the mail, and a plurality receives that information from the pipeline companies. And three quarters of these respondents say that overall, they receive too little information about pipeline safety.**

**The information about pipelines that residents statewide feel is most important is emergency evacuation plans, the potential dangers from pipeline failure, the rights of property owners near pipelines, how to recognize potential hazards, how and who to contact with concerns, and the pipeline company's safety record. The most important information that residents who are aware they live within a quarter mile of a major pipeline want to know is emergency evacuation plans, how to recognize potential hazards, how and who to contact with concerns, location of pipelines, and rights of property owners near pipelines.**

**Nearly all residents agree that they should have access to the information about the specific location of the pipelines, and even after being told about terrorism concerns, roughly three quarters of the residents in each group still agree that residents should have the right to know the specific location of major pipelines that run through their communities.**

**Local television news, direct mail, and newspapers are seen as the top three most effective communication mediums for distributing information about pipelines.**

**Local fire, police, and other emergency responders are seen as the most trustworthy source to provide reliable information about pipeline safety. This sentiment is shared between residents statewide and residents who are aware they live within a quarter mile of a major pipeline.**

**A majority of residents strongly favor each of the proposals offered in the survey. Requiring property owners who live within one thousand feet of a pipeline to disclose specific information about the pipeline when selling their property has the most support (92% favor / 73% strongly favor). This proposal has strong support even among those who currently live near a major pipeline.**

**Those who are aware that they live near a major pipeline are much more likely than respondents in the pipeline oversample as a whole to say that they know whom to alert if there is a pipeline emergency in their community. But a strong majority of respondents in both groups do not agree that their community and emergency services have a clear plan on how to respond and how to get out information in a pipeline emergency, or that agencies and organizations are doing a good job working together.**

**Awareness about the proximity of pipelines and what they carry is low among the oversample of residents living within a quarter mile of a major pipeline.**

## DETAILED FINDINGS

### General Attitudes and Concerns about Pipelines

*Most residents agree that pipelines are an essential element of our nation's energy supply and that they are safer than current alternatives for transporting fuels.*

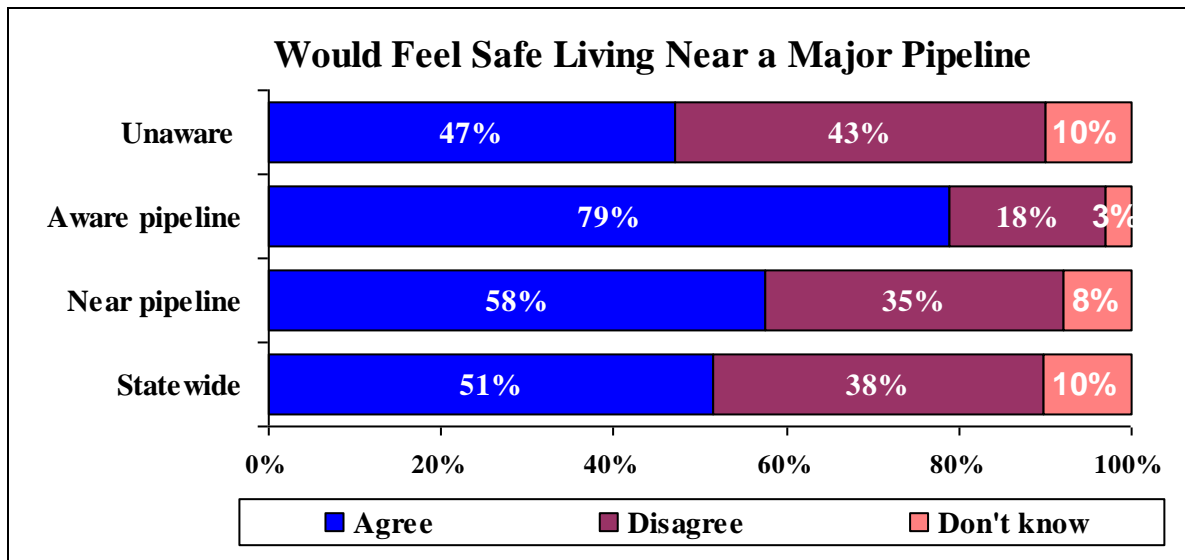
- A strong majority of respondents (87% or more) in all three groups – statewide residents, residents near pipelines, and residents who are aware they are near pipelines – agree that “pipelines are an essential element in our nation’s energy supply,” and that “pipelines are safer than current alternatives for transporting fuels” (64% to 71% agree).
- Residents who are aware that they live near a major pipeline are even more likely than the other groups to agree that pipelines are essential and that pipelines are safer than current alternatives.

	%Agree / %Strongly Agree			
Statement	Statewide	Near Pipeline	Aware Pipeline	Unaware Pipeline
40. Pipelines are an essential element in our nation's energy supply system.	87% / 56%	89% / 65%	93% / 70%	87% / 59%
39. Pipelines are safer than current alternatives for transporting fuels like trucks and tanker ships.	64% / 37%	66% / 42%	71% / 47%	65% / 39%

## Living Near a Major Pipeline

*Residents who are aware that they live near a major pipeline are much less concerned about living near a pipeline than respondents in the other two groups.*

- A strong majority (79%) of Pipeline Aware residents agree that they feel safe living near a major pipeline – one-in-five (18%) say they do not feel safe. By comparison, only half (51%) of statewide residents agree that they would feel safe living near a major pipeline, 39% say they would not feel safe, and 10% are not sure.

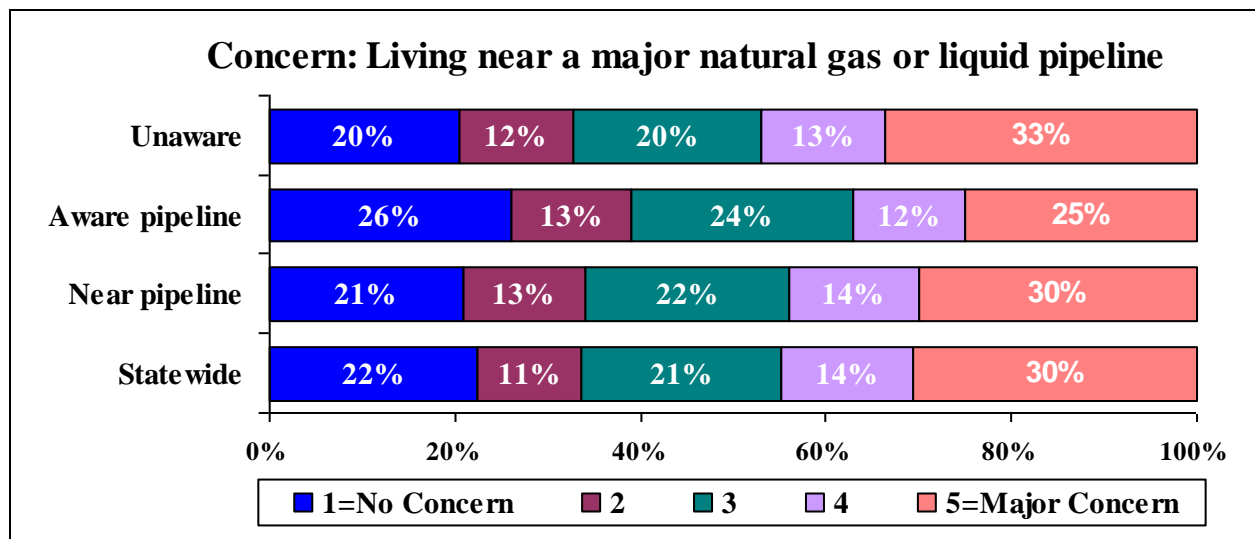


- From a list of seven potential concerns when choosing a place to live, living “near major natural gas or liquid pipelines” ranks third among residents statewide (3.20 mean on a 5-point scale, 1 means “not at all a concern and 5 means “a major concern”), and sixth among residents who are aware they live near a pipeline (2.98 mean). Among unaware residents, living “near major natural gas or liquid pipelines” ranks third (3.27 mean).

**Q3-9. Please tell me how much of a concern each of the following is to you when choosing a place to live. Use a scale of 1 to 5, where 1 means “not at all a concern and 5 means “a major concern”.**

*The home is...*

<b>Rank</b>	<b>Issue</b>	<b>Statewide</b>	<b>Pipeline</b>	<b>Aware</b>	<b>Unaware</b>
1.	in an area with potential for flood or landslide damage	3.77	3.83	4.12	3.76
2.	on or near a busy street	3.32	3.45	3.40	3.38
3.	<i>near major natural gas/ liquid pipelines</i>	<i>3.20 (3rd)</i>	<i>3.18 (4th)</i>	<i>2.98 (6th)</i>	<i>3.27 (3<sup>rd</sup>)</i>
4.	near an airport	3.10	3.19	3.25	3.12
5.	near an electrical power station	3.09	3.10	3.06	3.13
6.	near train tracks or railroad crossing.	3.07	3.08	2.92	3.12
7.	in an earthquake prone area	3.01	3.15	3.12	3.08

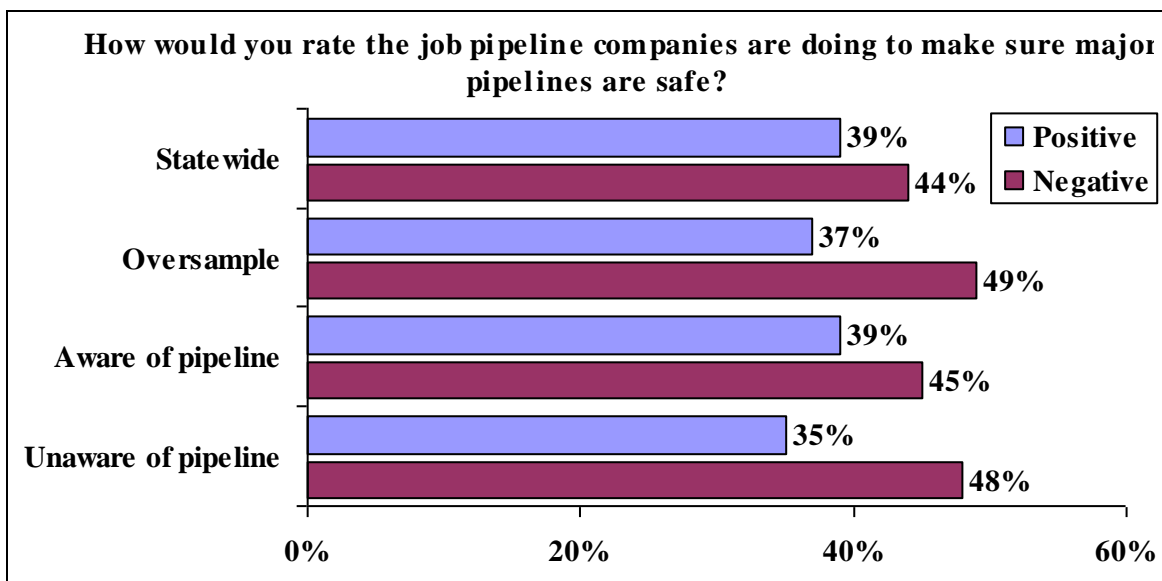




## Keeping Pipelines Safe

*Nearly half of residents in the statewide sample, the pipeline oversample, and the sample of those who are aware that they live near a major pipeline give pipeline companies a negative rating (“only fair” or “poor”) for the job they are doing making sure major pipelines are safe.*

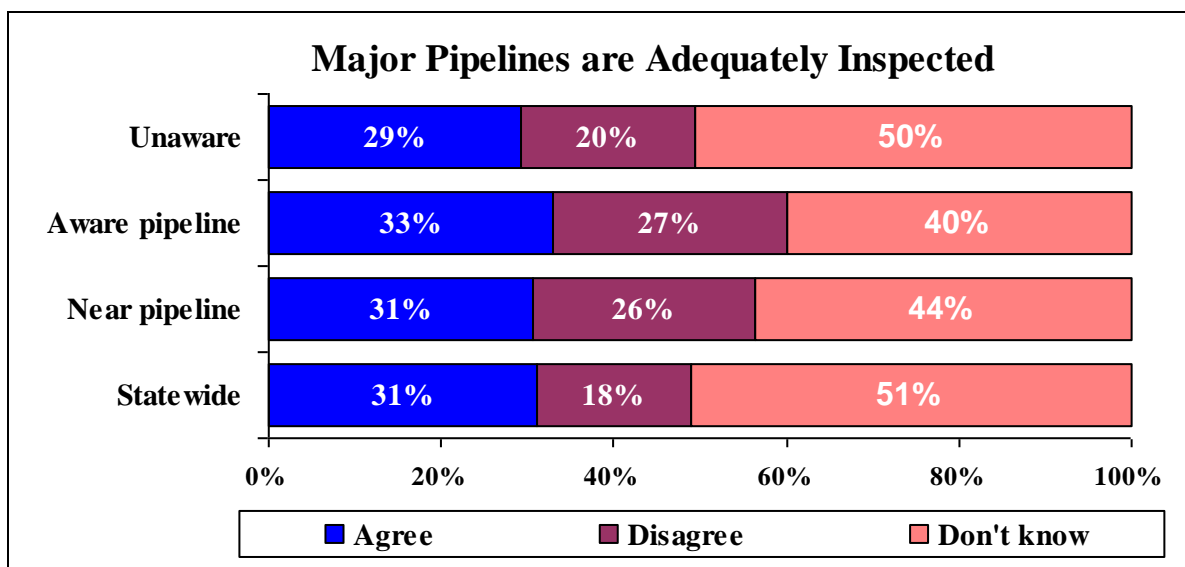
- By a 44% to 39% margin, statewide residents give pipeline companies a negative rating for the job they are doing to make sure major pipelines are safe. Respondents in the oversample give pipeline companies a 49% to 37% net negative rating and those who are aware that they live near a major pipeline give pipeline companies a 45% to 39% negative rating.



## Pipeline Inspections

*Most residents, including those who are aware that they live near a major pipeline, do not feel they have enough information to say whether or not pipelines in Washington state are adequately inspected.*

- Most residents do not feel that they have enough information to know if major pipelines in Washington state are adequately inspected or not. Fewer than a third of the respondents in each group agree that pipelines are adequately inspected, and a plurality in each group say they don't know if they are adequately inspected or not.

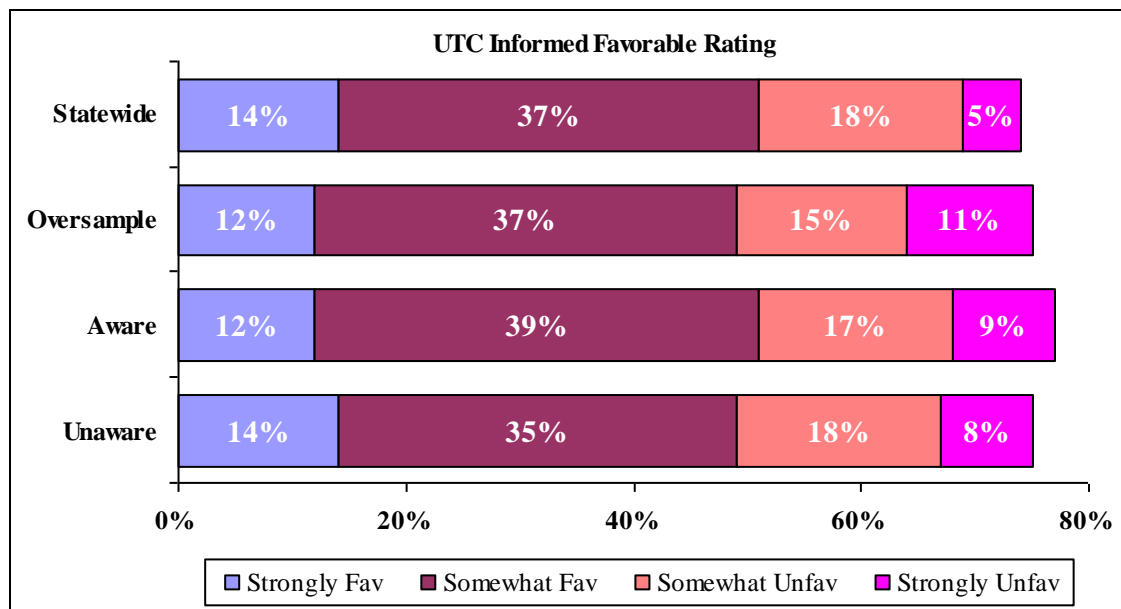


## UTC Favorable

*A majority of residents (51%) have a favorable opinion of the UTC after hearing a brief description of the agency and its purpose. There is no statistical difference in the UTC's favorable rating between the statewide sample and the other two groups.*

- The favorable ratio among statewide residents is 2.22:1, meaning that for every one person that has an unfavorable opinion of the UTC, 2.22 people have a favorable opinion of the UTC.
- These strong ratings are statistically identical for residents in the over-sample (49% fav; 26% unfav), those who are aware that they live near a pipeline (51% fav; 26% unfav), and those who are unaware (49% fav; 26% unfav).
- Roughly one-in-four respondents in each group (between 23% and 26%) say they have an unfavorable opinion of the UTC.

*As you may know, the Washington Utilities and Transportation Commission, or UTC regulates the rates and services provided by privately owned utilities and some transportation companies including electricity, telephone, natural gas, drinking water, and solid waste collection companies. The commission ALSO has some public safety responsibilities for pipelines and railroads. Given what you have just heard, do have a strongly favorable, somewhat favorable, somewhat unfavorable, or strongly unfavorable opinion of the UTC?*



## Keeping the Public Informed

### Access to Information

*Residents do not feel that the information people need about basic pipeline safety is being effectively communicated. Most are not sure where to get basic information about pipeline safety and do not feel the information is easy to find. Residents who are aware that they live near a major pipeline are slightly more likely to agree that they know where to get pipeline safety information, but even in this group, large numbers do not feel the information is being effectively communicated.*

*These concerns about the effectiveness of communication are echoed in the poor ratings given to the UTC and to pipeline companies for the job they are doing keeping the public informed about pipeline safety issues.*

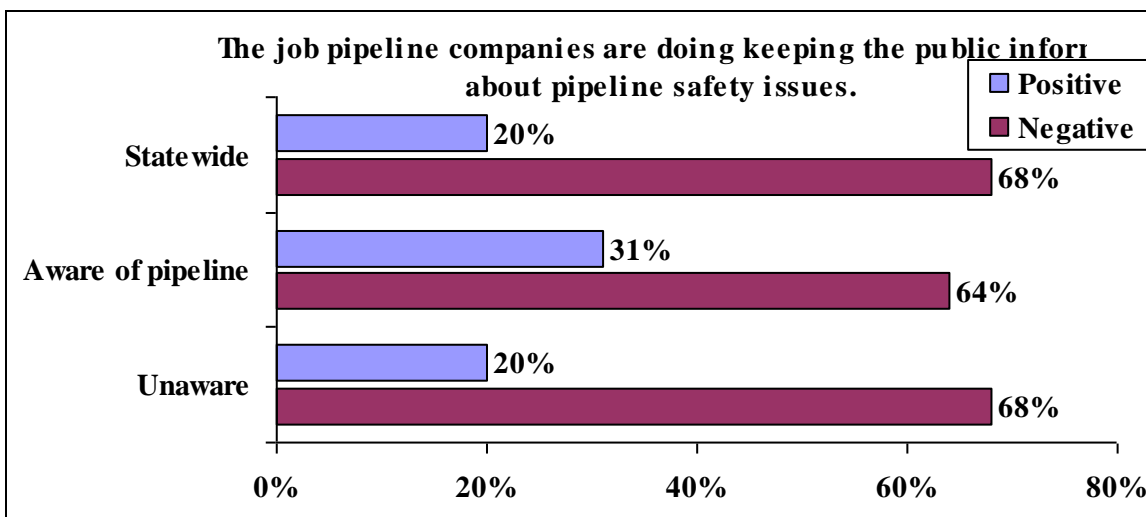
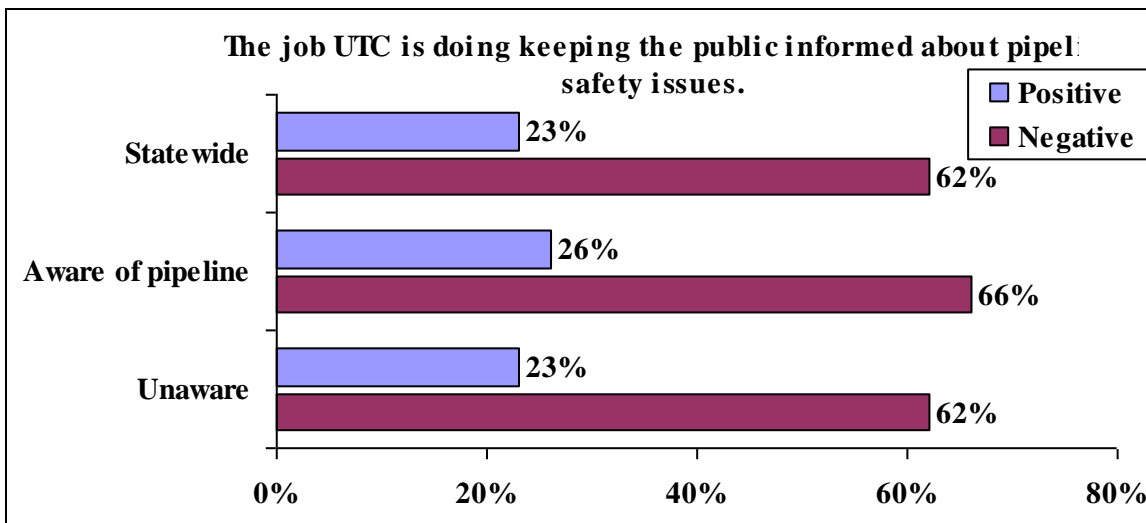
- Only a third (34%) of statewide residents agree that they know where to get basic information about pipeline safety. That number increases to 48% among those who are aware they live within a quarter mile of a pipeline, but still leaves 44% who disagree that they know where to get basic information about pipeline safety and another 8% who aren't sure.
- Only a third (32%) of statewide residents agree that the information people need about basic pipeline safety is easy to find. That number increases to 41% among the "Aware" group.
- By a 41% to 37% margin residents in the oversample disagree that the information people need about basic pipeline safety is being effectively communicated to residents who live near pipelines. Residents who are aware that they live near a major pipeline disagree with this statement by a 51% to 41% margin.

Statement	%Agree			
	Statewide	Near Pipeline	Aware Pipeline	Un-aware
37. The information people need about basic pipeline safety is reliable.	47%	53%	64%	47%
58. I know where to get basic information about pipeline safety.	34%	38%	48%	33%
38. The information people need about basic pipeline safety is being effectively communicated to residents who live near pipelines.	30%	37%	41%	31%
36. The information people need about basic pipeline safety is easy to find.	32%	34%	41%	31%

## UTC and Pipeline Companies

*Most residents in the statewide sample, over-sample, and those aware that they live within a quarter mile of a pipeline give negative job ratings for the UTC and the pipeline companies for the job they do keeping the public informed about pipeline safety.*

- By a 62% to 23% margin, statewide residents give the UTC a negative rating for the job they are doing keeping the public informed about pipeline safety issues. Those who are aware they live near a pipeline give the UTC similar ratings (26% pos / 66% neg).
- Pipeline companies get similar marks from residents for the job they are doing keeping the public informed about pipeline safety issues (Statewide: 20% positive / 68% negative; Aware of Pipeline: 31% positive / 64% negative).
- Results from the IVR survey were similar for these same job ratings. Respondents in the IVR give both the UTC (26% pos; 50% neg) and pipeline companies (34% pos; 52% neg) net negative ratings.

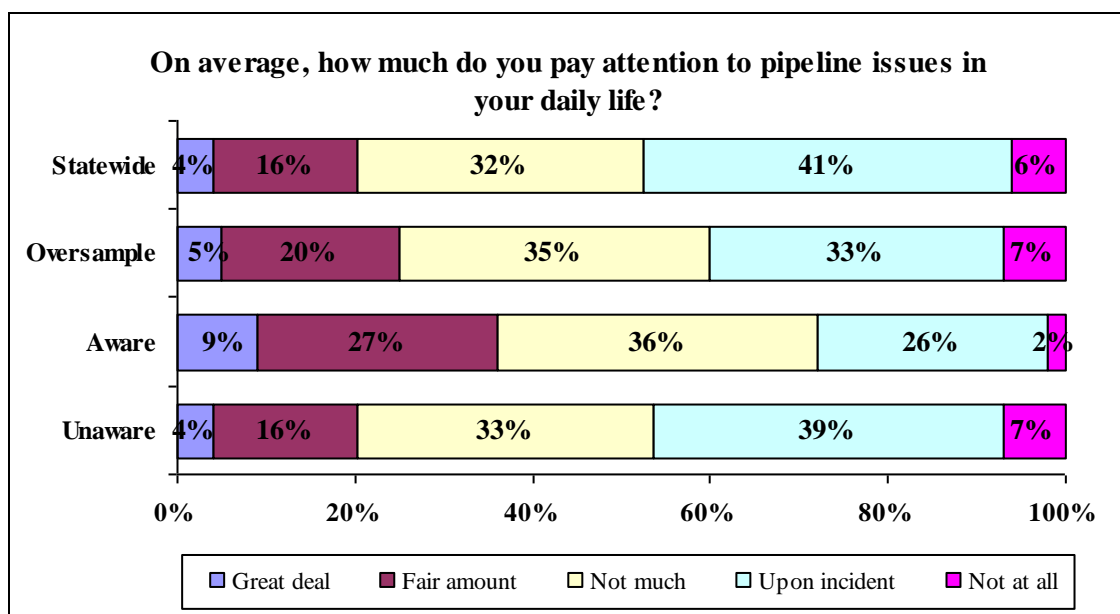


## Frequency

### Daily Focus on Pipeline Issues

*Most residents do not pay much attention to pipeline issues in their daily life. However, those residents who are aware that they live within a quarter mile of a pipeline pay more attention than residents in the other two groups.*

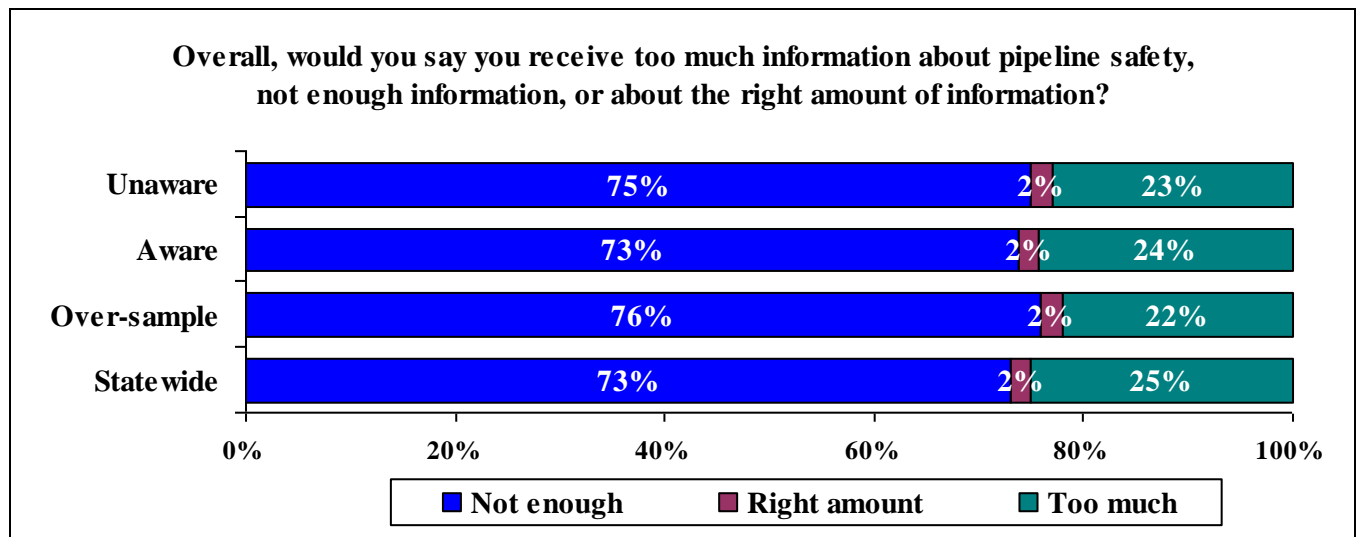
- More than a third (36%) of “aware” residents say they pay a “great deal” or a “fair amount” of attention to pipeline issues in their daily lives, compared to 20% of residents in the statewide sample, and 25% of residents in the pipeline oversample.



### Pipeline Information Received

*A third of respondents who are aware that they live near a major pipeline say they receive information, other than news reports, about basic pipeline safety. One quarter of the oversample say they receive information other than news reports. A majority (57%) of these residents (n=92) receive the information in the mail, and a plurality receives that information from the pipeline companies. And three quarters of these respondents say that overall, they receive too little information about pipeline safety.*

- Three out of four (76%) residents in the over-sample say they do not receive enough information about pipeline safety. These numbers are statistically identical in the statewide sample, as well as among those who are aware they live within a quarter mile of a pipeline, and those who are unaware they live near a pipeline.



## Content

*The information about pipelines that residents statewide feel is most important is emergency evacuation plans, the potential dangers from pipeline failure, the rights of property owners near pipelines, how to recognize potential hazards, how and who to contact with concerns, and the pipeline company's safety record. The most important information that residents who are aware they live within a quarter mile of a major pipeline want to know is emergency evacuation plans, how to recognize potential hazards, how and who to contact with concerns, location of pipelines, and rights of property owners near pipelines.*

- While the numbers themselves do not differ significantly from the statewide sample in terms of intensity, residents who are aware they live within a quarter mile of a major pipeline rate the types of information with slightly different priority. “Aware” residents put more importance on the location/proximity of pipelines, and statewide residents put more importance on potential dangers from pipeline damage or failure.
- The top responses for these exact same questions in the IVR survey are similar but fall into a different order of importance. How to recognize potential hazards (87% very important), location or proximity of pipelines (82% very important), and emergency/evacuation plans (82% very important) are seen as the most important pieces of information among respondents in the IVR survey.

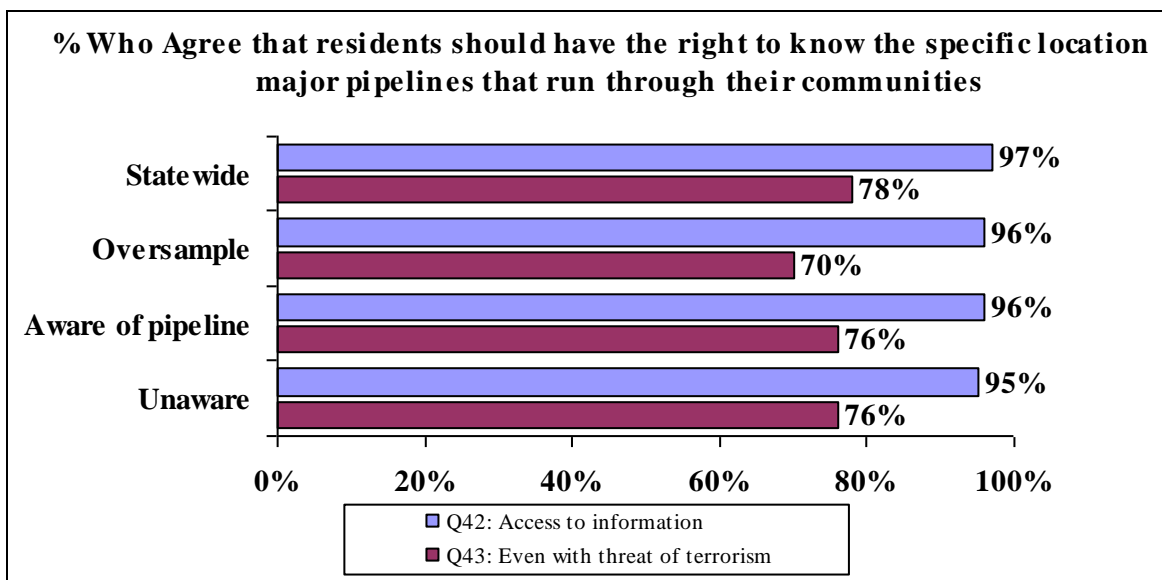
Type of Information	%Important / %Very Important			
	Statewide	Near Pipeline	Aware Pipeline	Un-aware
31. Emergency and evacuation plans in case of a pipeline related emergency	95% / 82%	94% / 75%	94% / 77%	94% / 79%
27. The potential dangers from pipeline damage or failure	94 / 76	91 / 68	93 / 67	92 / 72
26. Rights of property owners near pipelines	94 / 75	91 / 70	93 / 72	93 / 74
33. How to recognize potential pipeline safety hazards	93 / 72	92 / 70	92 / 75	93 / 70
32. How and who to contact with concerns relating to pipelines	94 / 70	93 / 68	94 / 73	94 / 69
23. The pipeline company's safety record	93 / 70	91 / 64	91 / 63	92 / 69
28. The contents being transported in the pipeline	88 / 68	85 / 57	84 / 53	88 / 66
25. Location or proximity of pipelines	92 / 64	91 / 67	92 / 73	91 / 65
30. Plans for new pipelines and expansions	93 / 60	88 / 62	88 / 65	91 / 60
22. The age of the pipelines	90 / 60	88 / 61	88 / 57	90 / 62
29. Pipeline testing and maintenance schedules	80 / 52	83 / 55	84 / 54	81 / 54
24. Operating record, including maximum pressure, of the pipeline	80 / 46	75 / 44	73 / 48	78 / 45



## Location

*Nearly all residents agree that they should have access to the information about the specific location of the pipelines, and even after being told about terrorism concerns, roughly three quarters of the residents in each group still agree that residents should have the right to know the specific location of major pipelines that run through their communities.*

- Even in the context of concerns about terrorism (q43), a strong majority of statewide residents (78%), oversample residents (70%), “Pipeline Aware” residents (76%), and unaware residents (76%) agree that they should have the right to know the specific location of major pipelines that run through their communities.



## Medium

*Local television news, direct mail, and newspapers are seen as the top three most effective communication mediums for distributing information about pipelines.*

- While residents statewide see local television news as the most effective communication medium (56% very effective), residents who are aware they live within a quarter mile of a major pipeline are more likely to think direct mail is the most effective (58% very effective). Both, however, are seen as the top two choices for the two groups.
- 40% of “aware” residents think that door to door canvassing would be a very effective way to communicate with residents about pipeline safety. That number is significantly lower with residents statewide (27% very effective).
- The best possible communication mediums as seen from respondents in the IVR are very similar, with local television (47% very effective) and direct mail (41% very effective) as the top responses.

*Next I am going to list some different ways basic pipeline safety information could be distributed to residents. For each, please tell me that method would be very effective, somewhat effective, not too effective, or not at all effective in getting information to you about basic pipeline safety.*

	%Effective / %Very Effective			
Medium	Statewide	Near Pipeline	Aware Pipeline	Unaware
45. Local television news	90% / 56%	90% / 51%	93% / 49%	90% / 55%
50. Direct mail	82 / 48	87 / 54	92 / 58	83 / 49
48. Local or regional newspapers	92 / 42	86 / 35	86 / 35	89 / 39
46. Local radio news	82 / 38	83 / 34	84 / 31	81 / 36
49. Door to door	60 / 27	54 / 28	66 / 40	56 / 25

## Messenger

*Local fire, police, and other emergency responders are seen as the most trustworthy source to provide reliable information about pipeline safety. This sentiment is shared between residents statewide and residents who are aware they live within a quarter mile of a major pipeline.*

How much would you trust each of the following sources to provide reliable information about pipeline safety? Use a scale of 1 to 5, where 1 means you would not trust that source at all and 5 means you would trust that source a great deal.

<b>Rank</b>	<b>Mean</b>	<b>“Aware”</b>
1. Local fire, police and other emergency responders	4.09	3.99 (1)
2. the state pipeline safety program at the WUTC	3.64	3.46 (2)
3. the Federal Government’s Office of Pipeline Safety (OPS)	3.31	3.11 (4)
4. City and county governments	3.28	3.29 (3)
5. Citizen groups	3.24	3.10 (5)
6. Pipeline Companies	2.84	2.95 (6)

- Roughly half of the residents in each group say they trust pipeline companies to provide reliable information about the overall condition and potential risks to the public from pipelines they operate, which is consistent with a mean rating of around 3.0 in the table above.

<b>Statement</b>	<b>%Agree</b>			
	<b>Statewide</b>	<b>Near Pipeline</b>	<b>Aware Pipeline</b>	<b>Un-aware</b>
41. I trust pipeline companies to provide reliable information about the overall condition and potential risks to the public from pipelines they operate.	53%	49%	51%	51%

## Proposals

*A majority of residents strongly favor each of the proposals offered in the survey. Requiring property owners who live within one thousand feet of a pipeline to disclose specific information about the pipeline when selling their property has the most support (92% favor / 73% strongly favor). This proposal has strong support even among those who currently live near a major pipeline.*

Statement	%Favor / %Strongly Favor			
	Statewide	Near Pipeline	Aware Pipeline	Unaware
53. Requiring property owners who live within one thousand feet of a pipeline to disclose specific information about the pipeline when selling their property.	92% / 73%	86% / 68%	82% / 59%	91% / 74%
54. Requiring companies who own and operate pipelines to set up toll free hotlines which community members can use to get information about pipeline safety issues.	91 / 68	89 / 62	92 / 64	90 / 65
56. Requiring pipeline companies to provide residents who live within one thousand feet of a pipeline with a quarterly report card that details inspection, maintenance and safety information about pipelines in their communities.	88 / 64	87 / 65	81 / 59	88 / 65
55. Having programs in schools that teach kids how to recognize and be safe around pipelines.	87 / 64	78 / 54	77 / 51	85 / 62

## Pipeline Oversample

### Attitudes About Preparedness (Pipeline oversample only)

*Those who are aware that they live near a major pipeline are much more likely than respondents in the pipeline oversample as a whole to say that they know whom to alert if there is a pipeline emergency in their community. But a strong majority of respondents in both groups do not agree that their community and emergency services have a clear plan on how to respond and how to get out information in a pipeline emergency, or that agencies and organizations are doing a good job working together.*

- Three quarters (79%) of Pipeline Aware respondents agree that they know whom to alert if there is a pipeline emergency compared to only half (50%) of respondents in the pipeline oversample.
- Most respondents do not agree that emergency services in their area have a clear plan on how to respond in a pipeline emergency (Oversample: 32% agree; Pipeline Aware (39% agree), or that their community has a clear plan to get crucial information out to the public in a pipeline emergency (Oversample: 24% agree; Pipeline Aware (36% agree).
- Most respondents do not agree that agencies and organizations in their area are doing a good job of working together to make sure the public is getting the information it needs about pipeline safety (Oversample: 28% agree; Pipeline Aware (30% agree).
- Results among the ‘Unaware’ group are statistically identical to the overall oversample.

Statement	% Agree		
	Near Pipeline	Aware Pipeline	Un-aware
61. I know whom to alert if there is a pipeline emergency in my community.	50%	79%	45%
63. Emergency services in my area have a clear plan on how to respond in a pipeline emergency.	32%	39%	33%
62. My community has a clear plan to get crucial information out to the public in a pipeline emergency.	24%	36%	22%
64. Agencies and organizations in my area are doing a good job of working together to make sure the public is getting the information it needs about pipeline safety.	28%	30%	27%

- These results are similar to the answers for the same questions in the IVR survey in June 2003 among persons who are involved in pipeline issues. The most notable difference is that 67% in the IVR agree that emergency services have a clear plan on how to respond in a pipeline emergency, whereas only 32% in the over-sample agree with the exact same statement.

## Awareness of Pipeline Proximity (Pipeline Oversample Only)

*Awareness about the proximity of pipelines and what they carry is low among the over-sample of residents living within a quarter mile of a major pipeline.*

- Only 4 out of 10 (39%) are aware they live near a major pipeline. A majority (55%) believe they do not live near a major pipeline and 6% aren't sure.
- Among those in the over-sample who are aware they live near a major pipeline (n=155), just over half (57%) say the pipeline carries natural gas. One fifth (19%) say they do not know what the pipeline carries.

